

# Health outcomes in young adulthood related to using marijuana during college

## MAJOR FINDINGS:

College students who use marijuana appear to be risking their health, particularly if they increase their marijuana use during college or continue a heavy use pattern.

The research team examined a large sample of young adults during a seven-year period. Seven out of 10 never or rarely used marijuana. Marijuana users were categorized into five groups based on the onset and progression of their marijuana use over the first six years of the study:

- **Low-stable** users (10.0%) included students who never increased their low-level use (3 times/month or less).
- **Late-Increase** users (4.7%) started out college using at relatively low levels (3 times/month or less) but increased in frequency starting during Year 3.
- **Early-Decline** users (4.3%) had moderate levels of marijuana use (7-8 days/month) that declined steadily through Year 6.
- **College-Peak** users (5.4%) had moderate use at Year 1 (7-8 days/month) and then declined more slowly after peaking during Year 3.
- **Chronic** users (4.2%) consistently maintained use patterns of 15+ times/month.

Health outcomes were measured in the 7<sup>th</sup> year of the study. Although the tendency of college students to use marijuana changes significantly during and after college, all marijuana-using college students in this study—except those who used marijuana rarely—were at risk for several adverse health outcomes, even after adjustment for alcohol and tobacco use and baseline health functioning. These health outcomes were: 1) functional impairment due to injury, illness, or emotional problems; 2) lower self-reported general health; 3) more psychiatric symptoms; 4) lower health-related quality of life; and 5) increased service utilization for physical and mental health problems three years post-college. Non-Users of marijuana fared significantly better than most of the marijuana-using groups on every outcome tested. Chronic and Late-Increase users had the worst health outcomes.

### *Of major interest to:*

- College Administrators
- Parents
- Educators
- Health Professionals
- Students
- Law and Policy Makers



**Practice and Policy Suggestions:** The findings of this study suggest that marijuana use during young adulthood is associated with health risks. More research is needed to confirm these findings in other samples, including non-college attending youth. It is imperative to better understand the impact of marijuana use patterns on physical and mental health and health care service utilization and costs. The finding that even modest differences in health outcomes among marijuana-using groups were already apparent in young adulthood underscores the importance of identifying and intervening with marijuana-using students early. College is an opportune time and might provide unique settings for confidential screening before problems escalate (e.g., campus health centers, academic assistance programs).

The complete publication referenced in this research brief can be found here: Caldeira, K.M., O'Grady, K.E., Vincent, K.B., Arria, A.M. (2012). Marijuana use trajectories during the post-college transition: Health outcomes in young adulthood. *Drug and Alcohol Dependence*. 125(3), 267-275. doi:10.1016/j.drugalcdep.2012.02.022



### About the College Life Study (CLS)

The CLS is a longitudinal study of 1,253 college students at a large, public, mid-Atlantic university. This study is one of the first large-scale scientific investigations that aims to discover the impact of health-related behaviors during the college experience. Any first time, first-year student between 17 and 19 years old at the university in the fall of 2004 was eligible to participate in a screening survey. The researchers then selected students to participate in the longitudinal study, which consisted of two-hour personal interviews administered annually, beginning with their first year of college. A full description of the methods used is available.<sup>1,2</sup> Inherent to all self-reporting research methods is the possibility for response bias. Because the sample is from one large university, the ability to generalize the findings elsewhere is uncertain. However, response rates have been excellent and attrition bias has been minimal.

For more information about the study, please visit [www.cls.umd.edu](http://www.cls.umd.edu) or contact Amelia M. Arria at the University of Maryland School of Public Health at [aarria@umd.edu](mailto:aarria@umd.edu).

<sup>1</sup> Arria, A.M., Caldeira, K.M., O'Grady, K.E., Vincent, K.B., Fitzelle, D.B., Johnson, E.P., Wish, E.D. (2008). Drug exposure opportunities and use patterns among college students: Results of a longitudinal prospective cohort study. *Substance Abuse*. 29(4), 19-38.

<sup>2</sup> Vincent, K.B., Kasperski, S.J., Caldeira, K.M., Garnier-Dykstra, L.M., Pinchevsky, G.M., O'Grady, K.E., Arria, A.M. (2012). Maintaining superior follow-up rates in a longitudinal study: Experiences from the College Life Study. *International Journal of Multiple Research Approaches*. 6(1), 56-72.

*This research brief was prepared by Bonnie Catone and disseminated by the Treatment Research Institute (TRI), a non-profit research and development group specializing in science-driven transformation of treatment and policy in substance use/abuse. Click [here](#) to learn more about TRI.*

